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S.E.E. Program Guide

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S.E.E. Program Guide
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Title: S.E.E. Program Guide**Abstract**

Salinas Valley Memorial Hospital Foundation: Children Miracle Network Hospitals (CMNH) Screen, Educate, and Equip (S.E.E.) Program provides free of cost cardiac screenings by EKGs, hands-only CPR training, and an AED to participating high schools for student athletes within Monterey, Santa Cruz, and San Benito County. Its purpose is to prevent and/or reduce sudden cardiac arrest among student athletes. To insure easier access to the programs information and history to potential participating high schools a program guide has been created. The guide contains information on sudden cardiac arrest, history of the program and CMNH, and the contracts and EKG results sheets. The guide is the first for the program as a tool to provide information to persuade potential participants to take part in the screenings. The participants who will benefit from the information are the employees of CMNH, the high schools and their student athletes ages 14-18, and future CMNH interns. A Recommendation for the agency is to have CMNH interns to continue updating and improving the guide.

Keywords: *Sudden Cardiac Arrest, EKG, Guide, Prevent and/or Reduce*

Agency Description

Salinas Valley Memorial Hospital Foundation (SVMH) is a partner with Children's Miracle Network Hospitals (CMNH), which is a "national charity dedicated to raising funds and awareness for children's healthcare needs across North America" (SVMH, 2017.). The CMNH Program at SVMHS raises funds to support medical equipment and services for children throughout the tri-county area. Within SVMHS, Funds are used to support the Norman P. Andresen Level III Neonatal Intensive Care Unit, for Pediatric Needs in the Emergency Room, to fund the SVMC / UCSF Pediatric Diabetes Clinic, and to support our 18-bed pediatric in-patient unit (SVMH, 2017). Additionally, the CMNH Program provides medical equipment and services for local children that are not otherwise covered by insurance or Medi-cal through a medical need granting program, and also funds pediatric outreach programs throughout Monterey, Santa Cruz, and San Benito Counties (SVMH, 2017).

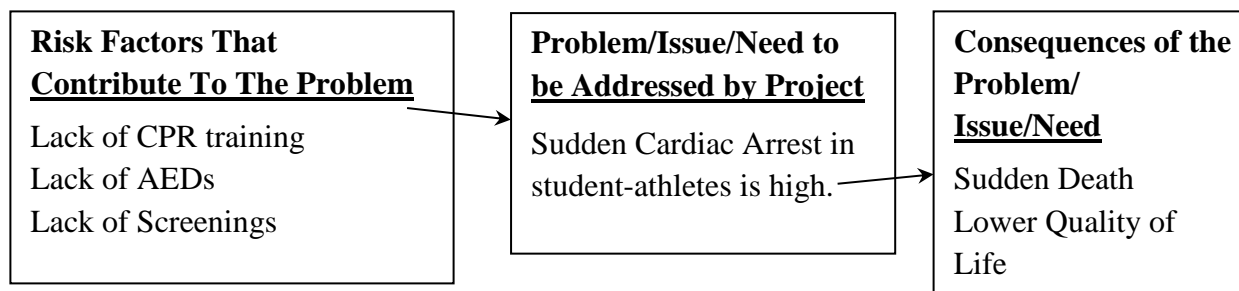
The program is a non-profit that gains money through grants, fundraising, and donations from corporate and individuals. CMNH also provides different annual events to spread awareness and fundraise such as their annual Gala Event or their Dance Marathon, which is held at different Universities that stay up 48 hours to ask for donations, speak to CMNH children and families, and promote exercise through dancing.

Problem Definition

Sudden cardiac arrest (SCA) amongst high school student-athletes is too high. SCA is defined as "an abnormality in the heart's electrical system that abruptly stops the heartbeat. It is caused by an undetected congenital or genetic heart condition" (California Interscholastic Federation, 2017). It is also said that "In the U.S., one youth athlete dies every three days and

SCA is 60% more likely to occur during sports or exercise activities and is the leading cause of deaths on school campuses” (California Interscholastic Federation, 2017).

Figure 1. The problem and its contributing risk factors and consequences



Contributing Risk Factors

According to the American Heart Association “as of 2016, 32 states require high schools to teach their students CPR in order to graduate” (American Heart Association, 2018). California is one of the 18 states that does not require CPR to be taught to their students, which is a skill that is useful to know in order to save a life. Studies found that in 2013, “there were only 2.4 million (8%) AEDs made available to the public in the U.S., but for there to be enough they would require 27 million more. If an AED is present, the individual’s chances of survival increase from 7% to 40%” (DXE Marketing, 2013).

Screenings such as an EKG or Echocardiogram are both able to detect heart abnormalities that can be missed by just using a stethoscope during a regular sport physical. One of the most frequent causes of SCA is known as Hypertrophic Cardiomyopathy (HCM), which is defined as “the thickening of the heart muscle, which causes symptoms of dizziness and shortness of breath. It is also accounted for about 40% of all cases” (O’Connor, 2012). The EKG and echocardiogram provide more insight on the condition of the heart than just using a stethoscope and provide a tangible image and reading. But it is due to its cost that it is not used by schools since it can be expensive to incorporate for every student.

Consequences

Student-athletes face various consequences such as sudden death and reduction of quality of life for survivors. SCA is found to be “the leading cause of death among young student-athletes with a student-athlete dying every three days” (Close the Gap, 2018). It is also said that “approximately 500 deaths attributed to sudden cardiac arrest in student-athletes each year in the United States” (Indiana Department of Education, 2015). Annually, almost 350,000 individuals in the United States die from sudden cardiac arrest and though 500 seems minimal when compared to the total, it is still an issue and a shock to others that teens are dying so young and suddenly, when believed to be healthy (Hendel, 2017). If not treated quickly in minutes, “SCA is fatal in 92% of cases” (California Interscholastic Federation, 2017).

For those that survive, it is found that their quality of life is lowered. Research has found that “27% of sudden cardiac arrest survivors suffer from post-traumatic stress disorder (PTSD)” (Horizon Research Foundation, 2018). A sudden death experience when one’s heart completely stops is a terrifying experience especially for teens whose lives are barely beginning. Studies have also shown that “long-term memory impairment in approximately 20-50% of SCA survivors, which in most cases it is their ability to recall that is affected rather than the recognition memory” (Horizon Research Foundation, 2018). The students who survive may suffer poor motor coordination, memory loss either short or long term and may suffer from confusion, which all can affect their ability to progress through school and have a normal life.

Project Description and Justification

The S.E.E. Program Guide is being created to provide a tangible document that will provide information to recruit high schools to be a part of the S.E.E. Program and help future interns with information on how to conduct the program. The S.E.E. Program, which stands for

screen, educate, and equip is a free electrocardiogram (EKG) screening program that is offered to high schools and their student-athletes from ages 14 to 18 years of age within Monterey, Santa Cruz, and San Benito County. It also provides the school's staff and students hands-only CPR taught by licensed professionals from The American Heart Association. The program will also offer the schools an automated external defibrillators (AED) with three years of maintenance covered. The S.E.E. Program's overall purpose is to bring awareness of sudden cardiac arrest in student-athletes and provide a free source of assistance through EKG screenings to deliver a more in-depth diagnosis to the heart than a normal physical would. If an abnormality is found, a notification to the student will be given to receive treatment as soon as possible by their primary physician and provide them with a copy of their EKG results to be shown to their physician.

In 2016, a pilot test on 70 student-athletes in Gonzales High School was given a free EKG screening and out of those 70, two students were found with abnormal heart conditions. One student had a leaking heart valve and due to the screening results, he was able to receive surgery to correct it on time and was able to continue to play. The other student had heart surgery when he was an infant but did not notify the school or athletic director about it and did not go for a follow-up. During the screening, he was found with an abnormal heart condition. His condition was more serious and was not able to be treated completely, so he was no longer approved to play.

The pilot screening was a success in finding two students with heart conditions and it provided enough support and evidence to show that the screening accomplished what it was set out to do. All that was accomplished and created since 2016 till now in regard to the program's history, cardiovascular information, contracts, documents, requirements, screening outcomes, and services have all been accumulated into a guide that will be used in future school participant

recruitments for the S.E.E. Program. The guide will be used to give athletic directors a physical source of information that can provide in depth information that one can return to and share with others to increase the programs chances of receiving more participants.

Implementation Description

The S.E.E. Program Guide was started in late July 2018 with the idea of its creation and the potential content in mind to be added and discussed for the first draft of the guide.

Corrections, additional documents, photos, and ideas were provided by the mentor for the intern to go over and modify the draft guide into a proper guide, which were completed on the 19th of August 2018. Final revisions and additions to the guide are to be made before October 31st and the final decision of publication of the guide will also be made before October 31st. The implementation of the guide will consist of presenting the information and the guide to athletic directors during recruitments as a source of accessible information for them to look over when making their decision. It will also be implemented as a guide for future interns to learn from as they implement the S.E.E. Program. Main implementation of the guide will not commence until new upcoming interns arrive to the agency and implement future S.E.E. Program screenings.

Evidence-Based

The Student Heart Check Program, which the S.E.E. Program is modeled after provides a comprehensive approach on how to address the SCA problem caused by hypertrophic cardiomyopathy and has received impressive results that have proven the effectiveness of the program and their approach. Before screenings, the Student Heart Check Program asks for medical history to verify heart-related conditions in their family and then conduct a physical examination and blood pressure check to gain a superficial reading and results of the student's condition. Then they provide the students with an EKG and echocardiogram to gain a better

visual of the heart and identify any abnormalities that may stand out that will require them to stop playing until they have had a check-up from their primary doctor. After the screenings process the students and parents are given CPR and AED education and training in case of emergencies (Beaumont, 2018). Rather than incorporating their program to the high school's curriculum and holding the screenings at the school's students in comparison to how the S.E.E. Program does, students can register online and visit the main program's site to get the screenings and train, or they may visit the locations where the program will be held.

According to some of the statistics on the Student Heart Check Program since its beginning in May 2007, it has “screened 16,180 kids in Michigan, 1,646 needed some sort of follow up with a doctor, 190 were advised to stop playing until they have had a follow with a cardiologist, 7 were found with hypertrophic cardiomyopathy (HCM), and 2,914 were taught hands-only CPR and AED awareness, which started in Sept. 2015” (Beaumont, 2018). The program has shown success in finding students ages 13-18 years of age with HCM, and though they have found seven students out of 16,180, those are lives that have been saved from falling victim to SCA. Their findings have shown that HCM is present and a threat to students and that through the use of the screenings, it can be found with a greater chance than with a standard physical. The program’s success was a great interest to CMNH and sparked an interest in bringing it to the tri-county, but with a greater focus of providing it to schools directly rather than having the students come to the program and provide hands-only CPR and equipping them with AEDs in addition to the education and training for them. Aside from these differences, the Student Heart Check Program implementation model and success in addressing the SCA issue are examples followed by the S.E.E. Program Guide.

Participation

The role of the intern at Salinas Valley Memorial Hospital Foundation: Children Miracle Network Hospital was to collect all necessary information, documents, photographs to create the guide and then assemble them into an organized and professional guide using Canva, which is a graphic design tool website to create a draft of the guide. The intern included the definition of what SCA is, describe each role of the S.E.E. Program screening into their own respective categories such as screenings, educating, and equipping the schools within the guide. The guide provides sample copies of consent forms, contracts, family history forms, and EKG result sheets within the guide to give potential participating schools a visual of their and their students responsibilities, as well as provide a summary page of CMNH as a whole and a contact page with phone numbers, emails, and mailing address of the CMNH Manager and the agency if potential participants have any remaining questions or concerns.

During the process of creating the guide the intern has submitted a rough draft of the guide to their mentor for revision for grammatical errors, and recommendations on adding additional information, images or formatting. The intern has received the revisions they are to make and has made those corrections. The intern has submitted the guide for final revision and has been told that official publication of the guide has been given approval. The agency has taken it upon themselves to print and pay for the publication. The participants of the project are the agency, the potential participating high schools, and the future interns. The agency's role is to support the guide, provide updates, and create more physical copies when needed. The high school's athletic directors and board are those who will receive a copy of the guide for their use. And lastly, future interns will use the guide to assist in their role in setting up their screenings.

Scope of Work

Figure 2. Scope of Work

Activities	Deliverables	Timeline	Estimated Completion Dates
<ol style="list-style-type: none"> 1. Send out emails to athletic directors to meet to pitch the program. 2. Set meeting dates to those that agreed to meet with us. 3. Customize packets and contracts for the school and students. 4. Find a physician and volunteers from cardiology. 5. Create a S.E.E. Program Guide as a backup capstone project. 6. Create the rough draft of the guide by using Canva an online graphic design tool. 7. Make corrections and apply a summary of CMNH and 	<ol style="list-style-type: none"> 1. Responses that can be achieved. 2. Obtain information on the school, number of student athletes from the meeting. 3. Have completed packets ready to be sent out. 4. Have a set volunteer team for screenings. 5. A completed guide 6. Have a completed draft with information, pictures, and contract samples. 7. Have a corrected and revised draft 8. Have an approved guide to give to an athletic director for suggestions. 9. Have the Athletic Director have a copy of guide in their possession 10. Have received feedback from the Athletic Director. 11. Have guide 	<ol style="list-style-type: none"> 1. January 2018 – February 2018 2. February 2018 – March 2018 3. February 2018 – March 2018 4. March 1, 2018 – April 30, 2018 5. June 20, 2018 – October 31, 2018 6. July 2018 – August 2018 7. August 20, 2018 – September 31, 2018 8. September 31, 2018 – October 31, 2018 9. October – November 2018 10. October - November 2018 11. December 2018 	<ol style="list-style-type: none"> 1. Responses received January 25, 2018 2. Information obtained February 12, 2018 3. Packets printed March 1, 2018 4. April 30, 2018 5. October 31, 2018 6. Draft completed August 19, 2018 7. September 30, 2018 8. October 25th, 2018 9. October 26th, 2018 10. November 7th, 2018 11. December 10th, 2018

<p>Contact information page for additional review.</p> <p>8. Make corrections to the guide before submitting a copy to an athletic director</p> <p>9. Have a copy of the guide to give to an Athletic Director</p> <p>10. Ask the Athletic Director for opinions and improvements on the guide.</p> <p>11. Make corrections based on athletic director's suggestions and have the guide officially printed.</p>	<p>officially printed and bound.</p>		
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The scope of work for the S.E.E. Program details the essential activities from creating the proper invitations to be sent to schools of interest, to deciding on the dates of the physical meetings with their athletic directors, creating the documentation for samples and the actual packets for the screenings, and setting up screening dates that work for the students, the school,

and the cardiology staff and doctor to attend. The scope of work took effect at the beginning of January when emails were sent to the high schools. Responses were received on the 25th of January. In February and March were when meetings with the King City and Alvarez athletic directors were made and attended. After the meetings, time and date choices were discussed to have a specific time that volunteers can participate. It started in March and dates and volunteers were expected to be received by April 30th, but proper dates were not given, which resulted in the screenings being canceled and a change in the capstone project direction.

During the time of implementing in early April, documents regarding FAQ's, contracts, health history questionnaire, and EKG results sheets were created (See Appendices A, B, C, D, E, and F). By late July, the S.E.E. Program guide was introduced and started and on December 10th the final version has been published. The first draft of the guide was completed on August 19th and corrections have been done. A corrected draft was submitted on October 25th for additional review before submitting a copy to an athletic director for opinions. On October 26th a copy of the guide was submitted to an athletic director for suggestions. Feedback was received on November 7th. On December 10th, the final approved version of the guide has been printed and bound.

Resources Needed

The S.E.E. Program project requires various resources to be effective in providing its services. It requires a sufficient amount of funding to pay the material and equipment for the screenings, CPR training, and supplying the schools with AEDs. The project has existing funds from the pilot testing back in 2016 to buy any supplies that may be required. Portable beds, pillows, portable EKG machines, volunteer cardiology staff and doctors, CPR training kits, AEDs, portable copier and printer, sufficient space, extension cords, privacy sheets, paper and

ink for copier and printer, documents such as contracts, informational sheets, and clipboards are the primary resources required to implement the project. Due to the previous pilot screening, most of these resources are kept and are reusable, but more can be purchased based on the need and the number of participants that will attend the screening.

The S.E.E. Program Guide uses the beta screenings information, results, and documents to create its content. Consent forms, family history questionnaire, and EKG result forms are used as samples to give the reader an idea of what the documents consist of before customizing them with their school information. Photographs and findings from the beta screening, with the permission granted by the participants are used in the guide to provide a more compelling and visual experience for the readers to gain more interest to consider taking part in the program. For the guide, paper, ink, and publication expenses are all provided by Children's Miracle Network Hospitals.

Challenges/Obstacles

A challenge that occurred during the implementation of the screenings was that the participating schools did not respond back with a solid date and time to have the screenings. Their lack of response caused the project to be canceled midway during implementation, which also left a challenge of creating an alternative capstone project. An obstacle that was present during the cancelation of the screenings was that one school was still willing to be a part of the screening program, but only if CMNH would partner with another program that has had more experience with screening student athletes. The individual in charge of the other program lacked communication with the CMNH Program Manager, which resulted in not being able to provide screenings for the willing high school.

Project Results

The expected outcomes for the S.E.E. Program Guide were to receive positive feedback from an athletic director with minimal changes and to obtain a response from the Alisal High School athletic director of whether the guide was effective in being a tool to persuade him to be a part of the program. After the completion of the guide, a mock meeting was made with the athletic director, where the guide was introduced to him. After the meeting, the athletic director took the guide home and was given a week to go over the guide and answer a questionnaire sent to him via email. The method used to assess the projects outcomes was to analyze the responses the athletic director provided by using a six-question questionnaire, which if it received two or less negative responses results in the guide reaching its desired outcome of being successful as an informative and well-organized tool.

After a week, the Alisal High School athletic director emailed back his responses and out of the six questions provided to him, one question which asked what he would like to have seen in the guide, he responded with wanting to have seen more visuals and larger font. More visuals and large font were the only two qualities that the guide lacked, but the overall guide as a whole was well put together, informative, and liked by the athletic director. One question asked from a scale from one to ten how informative was the guide to which he gave the guide a ten for the information being clear and straight forward, while another question asked if the guide helped him consider being a part of the S.E.E. Program to which he responded yes it would (see Figure. 3). The guide reached it's expected outcomes of receiving no more than two negative comments, which were the need for more visuals and larger font and to be informative enough to have an athletic director consider the S.E.E. Program apart from just having a meeting. On December 10th, 3 copies of the final approved guide were printed and bound for official use.

Figure 3. Guide Questionnaire

Questions	Answers
On a scale from 1 to 10, how informative was the was the guide to you?	“10. The information was very clear and straight forward.”
What part of the guide was help to you?	“The visuals. I am a very visual person that sometimes needs to see things in front of me, too much type makes me disinterested.”
What wasn’t clear helpful or clear information wise?	“Nothing.”
What would you have liked to have seen in the guide?	More visuals and larger font paragraphs that highlight certain paints.”
Was the additional information provided by the guide able to assist you in considering the program?	“Yes, it was”
Any additional comments?	“Great packet and great program.”

The strengths that the guide had that lead to its success was the accumulation and organization of information of the 2016 screening at Gonzalez High School, samples of contracts and documents involved, breakdown of services and equipment the program provides, information on the seriousness of sudden cardiac arrest in student athletes, and images from the 2016 screening. The information and content were written in a straight forward, concise, and brief manner to explain the program in effective way, while also not trying to overwhelm the reader with long explanation that can lead to the loss of interest in reading the guide. The guide was successful in keeping the reader informed and interested, which is proven by the athletic director rating the guide a 10 due to it being very clear in what it is trying to inform on and being straight forward.

The method that allowed the guide to be successful and a strong tool for recruitment meetings was by introducing it during a mock interview. While introducing the guide to the athletic director, it grabbed his attention and was appreciated by him due the images on the cover and inside as he skimmed through it and his liking of having physical information in his hands

that he can reference. By having a tangible piece of information in one's hand, it is more effective to have something to look at and read rather than just listening to someone speak about something with no imagery, which makes this the guide's greatest strength when recruiting high schools.

A limitation the project faced was that it was not able to be implemented in multiple meetings with athletic directors for actual recruitments. It is due to the limited time frame that was available during the development of the guide and the S.E.E. Program being placed on hold until 2019 that the guide was not able to be distributed to multiple athletic directors. But the activity of having a mock recruitment meeting with a willing local high school athletic director made it possible to obtain a director's suggestions on improving the guide and seeing if it was useful in persuading him to consider the program to which he did.

Conclusion

Overall, the SCA problem affecting student-athletes is a serious medical issue that requires the most attention in providing thorough screenings, CPR training, and AEDs to help student-athletes have a fighting chance of survival and early warnings of any abnormal heart conditions. With the S.E.E. Program provided by CMNH, student athletes within the tri-county have an opportunity to receive a free of charge screening to help them detect a cardiovascular condition that can be overlooked by a normal physical. Schools being given the opportunity to be given free hands-only CPR training and an AED can save them money that they don't have to afford an additional AED and by taking part in the screenings can benefit greatly from the things offered by the S.E.E. Program in order to save a student athlete's life.

With the assistance of the S.E.E. Program Guide that has been created, it will provide the S.E.E. Program in the future a greater chance of being implemented within schools with the

information of SCA, the benefits of EKG screenings, the effectiveness of hands-only CPR and an additional AED that can make a great difference in saving a student athlete's life. By having such information, it can provide athletic directors and their schools tangible information that can greatly increase the chances of persuading them to join the program. In addition to being helpful source of information to athletic directors it will also give new interns the insight and building blocks they will need to conduct and implement their own screenings.

The guide should be a continued project since there will be future screenings and with those screenings, much more information will be collected that can be used to update the guide and have more details to assist the guide in becoming a more compelling tool. With the continuation of the guide it also allows room for translation into Spanish and many more languages if able by future interns and employees. By having the guide translated and filled with more recent information, it increases the impact it has on the reader in knowing that the information being provided is current, effective and can make a difference in the health of their student-athletes. The guide can bring greater awareness to the issue of sudden cardiac arrest in young student-athletes and let others know that just because an individual is young and active does not signify that they are protected against serious health risks.

Personal Reflection/Final Thoughts

When working on the guide, what was learned about the severity of cardiomyopathy and the number of student's athletes that die from sudden cardiac arrest due to an underlying heart condition that was not detected during a regular sports physical is eye-opening and frightening. It is frightening because "In the U.S., one youth athlete dies every three days and SCA is 60% more likely to occur during sports or exercise activities and is the leading cause of deaths on school campuses" (California Interscholastic Federation, 2017).

With modern medical technology such as an EKG screening can make a significant difference in detect abnormalities internally and in greater depth than a sports physical can. The guides inclusion to the recruitment meeting provides additional information to address that these screening are a need the community requires to keep their children alive and well and being a free service helps families that couldn't afford a proper screening on their own.

The planning process of the guide assisted in developing time management skills and information organization. The planning and creation of a guide requires a proper amount of time to find the appropriate information to include as well as making the description clear, concise, and straight to the point to not lose the interest of the reader. It is a much-needed skill because one can get lost in their work and overload the project with excessive material that can be displeasing to the readers. I am the type of individual that believes that more information is better, but in certain cases too much of a good thing can be bad as well. This project taught me that sometimes short, concise, and straightforward is an effective way of introducing information as well.

The implementation of the guide through the mock interview was a much-needed practice in knowing how to market one's resources and promote a good cause. It was my first meeting without my mentor, and it allowed me to use what I've learned from watching mentor promote the S.E.E. Program in multiple meetings. I was able to practice my professional communication skills, used my memory to answer questions related to the S.E.E. Program, and able to incorporate the guide into the conversation. Though I do require more practice, the guide was received with positive reviews by the Alisal High School Athletic Director.

After working on the guide, I have realized that its contribution to the agency will make a greater impact on persuading potential participating schools to be a part of the S.E.E. Program in

the form of being a source of information from past screenings, the services the program provides, and contracts involved. The guide assists in bringing awareness to the issue of cardiovascular issues within student-athletes and provide information about the agency and how it can also provide other various services to children in need. Though the guide is not the solution itself it is a much-needed tool in promoting the screenings. The guide does a fantastic job by bringing together all the hard work CMNH in creating, providing, and executing the S.E.E. Program screenings to show others what a tremendous program it is and how much CMNH has invested in saving the lives of children.

As mentioned earlier, though the guide is not the main treatment or solution to the issue of undetected cardiovascular conditions in student-athletes, it still makes an impact on those who read it. During a meeting, words and information can be exchanged, but in time can be forgotten, but with the guide, it is all condensed into one resource and can be read as many times as needed by potential participants. The guide addresses the issue of sudden cardiac arrest in young student-athletes by bringing awareness to the issue and explaining CMNH's way of tackling the problem. Other than just the cardiovascular issue, awareness and knowledge of the issue is another problem that is faced, but with the guide it can be passed down from one individual to another to inform and let others know that a free service that can make a life-changing impact in their student's lives is available and ready to be used.

Though the guide is a step in the right direction towards the issue, a lot more can be done. School presentations on sudden cardiac arrest in student-athletes can be presented to the student body to let them know that they should be more cautious about their health and get proper screenings done. More public exposure of the S.E.E. Program outside of meetings with athletic director is much needed to grab the attention of parents as well because parents need to be

informed of such life-threatening conditions their child may have without knowing. By doing so, they may develop an interest and ask their local schools to take part in the program. This can be done through handouts and presentations directed at the parents, or even during student orientations during their first or returning years.

Lastly, my advice for future student interns who decide to intern at CMNH, I gladly encourage them to take on more behind the scenes work. In the beginning, I was hesitant to take on behind the scenes work due to my love for interacting with other people, but I've learned so much from being there and have grown to appreciate the fundraising and public administration side of Collaborative Health and Human Services. I recommend CMNH to future interns and advise them to step out of their comfort zone and try something new. There is so much to learn, and it is essential to be very open-minded and challenge oneself because I did, and I've gained so many new skills such as how to conduct a professional meeting, how board meetings operate, the fundamentals of fundraising and the policies that go with it. What others do in the office is just as important as those that are hands-on with clients and future interns should immerse themselves into that world as well because there is so much valuable information and amazing people to work with.

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Appendices

Appendices A. FAQ Sheet



S.E.E. Program - Frequently Asked Questions

Q. What is Hypertrophic Cardiomyopathy?

Hypertrophic Cardiomyopathy (HCM) is a condition that causes the heart muscle to become thickened, making it harder for the heart to pump blood effectively. This may prevent the heart from getting enough blood and oxygen during exercise, which could trigger a cardiac arrest and death.

Q. What is the cause of HCM?

The actual cause of HCM is not known. However, it is commonly an inherited condition that results in genetic defects that control growth of the heart muscle.

Q. How common is HCM?

HCM is a relatively uncommon disorder, and is estimated to affect 1 in 500 people.

Q. What are common symptoms of HCM?

Not everyone with HCM will demonstrate signs or symptoms of the disorder. However, symptoms associated with HCM include chest pain, dizziness, fainting, heart failure, hypertension (high blood pressure), lightheadedness, skipping or racing heart, shortness of breath (with activity or when lying down) and fatigue.

Q. How can HCM be detected?

Initial signs of HCM can be detected through an electrocardiogram (ECG). In those with an ECG suggestive of HCM, the diagnosis can be made utilizing an echocardiogram, or ultrasound of the heart.

Q. How does the S.E.E. Cardiac Screening differ from a pre-participation sport physical?

Pre-participation sports physicals differ in intensity and scope. The S.E.E. Program offers a more comprehensive focus on the heart, looking for signs of HCM, or other potentially dangerous heart ailments that may raise a student's risk of sudden cardiac arrest. Combined with a health history questionnaire focused on the family and individual's heart history, the screening program uses an electrocardiogram ECG and sometimes an echocardiogram to more intently focus on heart abnormalities.

Q. What is an ECG?

An ECG is a painless, quick test that evaluates the electrical activity of the heart. Tracings of the electrical activity of the heart are obtained by having trained personnel attached electrodes to the chest, which are connected to the ECG machine via lead wires. These wires help transmit the electrical activity back to the ECG machine and transform the electrical impulses into waveforms. These waveforms can then be evaluated for abnormalities by the physician.

Q. What is an echocardiogram?

The echocardiogram, or echo, is an ultrasound of the heart. The echo utilizes sound waves to produce a picture of the heart that can be used to determine valve structure, heart wall thickness and the pumping ability of the heart.

Appendices A. FAQ (cont.)



S.E.E. Program - Frequently Asked Questions

Q. What happens if the screening results for my child come back abnormal?

A copy of the ECG and physician notes will be provided at the end of the screening for you to share with your family physician. If an abnormality is found that results in a **"Stop"** activity recommendation, the parents will be notified and consulted immediately by the onsite physician.

Q. How much does the heart check screening cost?

S.E.E. Program screenings are provided free of charge as a community service offering from Salinas Valley Memorial Healthcare System and our Children's Miracle Network Hospitals Program.


Q. How can such valuable tests be offered at no charge?

This program can be provided at no cost to the students due to the volunteer efforts of the physicians and staff. In addition, donations made to our local Children's Miracle Network Hospitals Program have funded the purchase of equipment and supplies needed for the screening.

Appendices B. Family Health History

Memorial Healthcare System Miracle Network Hospitals		Student / Family Health History Questionnaire	
Student's Name: _____ Birthdate: _____			
Height: _____ Weight: _____ Gender: M F (circle one)			
1. Has it been more than two years since you had a physical exam that included a blood pressure reading and listening to your heart?	YES	NO	
2. Has a physician or your parents ever told you that you have a heart murmur?	YES	NO	
3. Has a physician ever suggested that you not participate in athletic competition?	YES	NO	
4. Have you had chest pain/pressure, dizziness or racing or "skipped beats" at rest or with exercise?	YES	NO	
5. Have you ever fainted or passed out during exercise or after having been startled?	YES	NO	
6. Have you ever fainted or passed out after exercise?	YES	NO	
7. Have you ever been told that you have high blood pressure, high cholesterol or diabetes?	YES	NO	
8. Have you ever been diagnosed with unexplained seizures or exercise-induced asthma?	YES	NO	
9. Have you had prior heart testing ordered by a physician?	YES	NO	
10. Do you use, or have you ever used, cocaine or anabolic steroids, or do you smoke?	YES	NO	
11. Has anyone in your family had sudden, unexpected death before age 50?	YES	NO	
12. Has anyone in your family had heart disease related disability before the age of 50?	YES	NO	
13. Has anyone in your immediate family had unexplained fainting or seizures?	YES	NO	
14. Has a physician diagnosed anyone in your family with an abnormally thickened heart, weakened heart, Marfan syndrome or other cardiac conditions?	YES	NO	
15. What sport(s) do you plan on playing? _____			
If the answer to any of the above questions is yes, please give more details: _____ _____ _____			
Completed by: _____			
Parent / Guardian Name (printed) _____		Parent/Guardian Signature _____ date _____	
Student Signature _____ date _____		<div style="background-color: #333; color: white; padding: 5px; display: inline-block;"> Page 1 / 1 </div> <div style="display: inline-block; vertical-align: middle;"> — 🔍 + </div>	

Appendices C. Student Health Check Program Consent Form



Student Heart Check Program Consent

Student's name: _____ Date of Birth: _____ Grade: _____

Program goals:

Salinas Valley Memorial Healthcare System, through its Children's Miracle Network Hospitals Program, is offering a school-based screening program for **King C'ty High School** students. Cardiovascular pre-participation screening is the systematic practice of medically evaluating large, general populations of athletes prior to participation in sports for the purpose of identifying or raising suspicion of abnormalities that could provoke disease progression or sudden death (AHA Scientific Statement 2007).

The purpose of the screening is to attempt to identify any pre-existing heart conditions that could potentially increase the student's risk of sudden cardiac arrest during vigorous physical activity and/or athletic competition.

Screening consent:

I understand that the screening examination and tests offered by Salinas Valley Memorial Healthcare System (SVMHS) do not diagnose cardiac disease, and that any sign or symptom found means that my child needs further medical evaluation (full history, physical examination and diagnostic testing) to determine the cause of the sign or symptom. Additionally, I understand that SVMHS will notify me of any sign or symptom that is found during the screening. I understand that SVMHS will not provide any further tests or follow-up care without a medical professional order or referral after this screening. I also understand that it is my responsibility to arrange for my child's follow-up care if indicated, and that this screening is not a substitute for a complete pre-activity/athletic competition evaluation by my child's physician.

I consent to my child receiving the following screening evaluation:

- **Med'cal history:** Consists of a pre-printed questionnaire to be completed by parents prior to screening day.
- **Electrocardiogram (ECG):** Performed at rest with patches placed on surface of skin. The test maps the rate, rhythm and functions of the heart, and prints a tracing for physician review and interpretation.
- **Physician review and examination:** A physician will review the screening findings as described above and perform a limited physical examination and echocardiogram if deemed necessary.
- **Echocardiogram (qu'ck look):** A screening echocardiogram is an ultrasound image created by using a Doppler wand across the chest.

I hereby consent that my child _____ may participate in the SEE student athlete heart screening program as described above. I agree that SVMHS is not responsible to arrange for any further tests or care for my child, and has made no guarantees or promises to me related to the screening provided.

Additionally, I hereby consent to the participation in interviews, the use of quotes, and the taking of photographs, audio, or video recordings of my child named above. I grant SVMHS the right to edit, use, and reuse said photos, videos, and audio materials on all forms of media and I understand that no financial or other compensation will be provided.

(Parent/Guardian Initials)

Appendices D. Patient Info Letter



DATE

Dear Parents and Guardians,

We want to make you aware of a screening program developed by Salinas Valley Memorial Healthcare System (SVMHS) for students involved in vigorous activities and organized sports. The S.E.E. Program (Screen, Educate, Equip) includes a noninvasive screening to look for signs of hypertrophic cardiomyopathy (HCM). This is a serious heart condition that is the leading cause of sudden cardiac death in young athletes. HCM affects approximately one in 500 people, and does not usually have any symptoms. The stress on the heart during strenuous activities puts students with undetected HCM at higher risk for sudden death.

SVMHS is offering this free screening to high school students of King City High School on **DATE** from **TIME RANGE**. The event will be held at **LOCATION**.

During their scheduled appointment time, participating students will undergo a quick screening that will include a review of the health history questionnaire (included in this packet). Please complete this questionnaire with your student, before your scheduled screening time. Participating students will receive an electrocardiogram (ECG), and if deemed necessary by the physician, an echocardiogram (quick look) may also be performed.

To participate in the heart screening portion of the S.E.E. Program, you will need to complete the attached paperwork and return it to school with your child **in advance of the screening**, at which time your appointment will be scheduled. If forms are missing or incomplete, we will be unable to screen your student and a makeup screening will not be offered.

Required forms include:

1. Completed student/family history questionnaire **signed** by both a parent and the student
2. Program consent form **signed** by a parent or legal guardian (this includes an optional photo/media consent)

Student privacy and confidentiality will be maintained at all times.

Please direct all screening related questions to Melissa Gross at 831-755-0777 or mgross@svmhs.com

Sincerely,

Melissa Gross, Program Director
Children's Miracle Network Hospitals
Salinas Valley Memorial Healthcare System

Appendices E. EKG Results Sheet

Student's Name _____

Date _____

Age _____

Blood pressure _____ Onsite Physician _____

- ☐ Normal (<120/80 mmHg)
- ☐ Borderline (120/80-140/90 mmHg)
- ☐ Abnormal (>140/90 mmHg)
- ☐ Suggest follow-up with primary care physician

Medical history

- ☐ Normal
- ☐ Smoking
- ☐ Recommend to follow-up or discuss with primary care physician

ECG (electrocardiogram)

ECG Tech _____

- ☐ Within normal limits
- ☐ Outside of normal: *no follow-up recommended*
- ☐ Outside of normal: *follow-up with primary care physician recommended*

Echocardiogram (quick look)

- ☐ Not necessary / not performed
- ☐ Within normal limits
- ☐ Outside of normal: *follow-up with primary care physician recommended*

Comments to parents:

- ☐ Your child's history was abnormal for _____.
- ☐ Your child's Blood Pressure was elevated.
- ☐ A murmur was detected, please discuss finding with your primary care physician.
- ☐ Other: _____

Overall impression

- ☐ **Play Sports!** We did not see any abnormalities based upon today's screening results. Your risk for heart problems with physical activity is low.
- ☐ **Play Sports!** However, based upon today's screening, **physician follow-up is recommended** as indicated above.
- ☐ **STOP! No participation in sports until a more comprehensive evaluation can be completed.**

Physician spoke to parent or guardian: _____

Parent Name Method of contact

Physician signature _____



Appendices F. Consent and Authorization Form

Consent and Authorization

This Consent and Authorization (the "Consent") is made and given by or on behalf of _____ ("Subject") in favor of Children's Miracle Network, a Utah non-profit corporation ("Children's Miracle Network Hospitals") and Salinas Valley Memorial Hospital Foundation ("SVMHF").

Children's Miracle Network Hospitals and/or SVMHF desires to use Subject and, if applicable, information concerning Subject's medical condition, for publicity, fundraising, awareness, promotions, campaigns and/or events by Children's Miracle Network Hospitals, its member hospitals/foundations and healthcare institutions, sponsors, and/or other affiliates.

Subject hereby consents to and authorizes Children's Miracle Network Hospitals and/or Salinas Valley Memorial Hospital Foundation to take and use photographs, videos, films and/or audio recordings of Subject, to use any likeness of Subject, and to use Subject's name and information concerning Subject's medical condition. If Subject is a child who has been selected by Children's Miracle Network Hospitals and/or Salinas Valley Memorial Hospital Foundation due to an injury or disease, Children's Miracle Network Hospitals and/or SVMHF may use any information concerning Subject's health, injury, illness, and treatment, related circumstances and any other related information concerning Subject. It is acknowledged and agreed that these materials and this information may be used for publicity, fundraising, awareness, promotions, campaigns and/or events throughout the world, in perpetuity, and may be edited or modified and used in any form of media by any manner (now and hereafter known). Subject waives the right to inspect or approve any such materials and information. Children's Miracle Network Hospitals and SVMHF shall be the owners of such materials and information, including all copyrights and all moral rights, throughout the world. Children's Miracle Network Hospitals may authorize hospitals, foundations, healthcare institutions, sponsors and/or others affiliated with Children's Miracle Network Hospitals to use such materials and information.

Disclosure of health information about Subject may include, but is not limited to, diagnosis, medical and family histories, condition, treatment, and prognosis. The disclosure of such health information will no longer be protected by federal and state/province privacy laws and may be redisclosed by any person or organization that receives the information.

This Consent is irrevocable and permanent. Subject will not receive any payment or other consideration for this Consent. Subject hereby releases, discharges and holds harmless Children's Miracle Network Hospitals, Salinas Valley Memorial H and its authorized hospitals, foundations, healthcare institutions, sponsors and other affiliates from and against any and all claims arising out of or related to this Consent and/or the materials and intended to apply to all claims not known or suspected to exist with the intent of waiving the effect of laws requiring the intent to release future unknown claims. This Agreement shall be governed by and construed in accordance with the laws of the State of Utah and/or California. If Subject is a child, this Consent shall also apply to and bind the parents or guardian of Subject.

Dated: _____, 201____.

If Subject is 18 years of age or older:

Subject

If Subject is a child:

Signature (Parent): _____

Signature (Parent): _____

Name (Print): _____

Name (Print): _____

Signature (Guardian): _____

Name (Print): _____

Signing Instructions:

Must be signed by both parents unless parent is single. If divorced, must be signed by parent having legal custody of Subject. If a guardian has been appointed for Subject, must be signed by guardian.

Appendices G. Guide Questionnaire to Athletic Director

S.E.E. Program Guide Questionnaire

- 1) On a scale from 1 to 10 how informative was the guide to you? **10. The information was very clear and straight forward**
- 2) What parts of the guide were helpful to you? **The visuals. I am a visual person that sometimes needs to see things in front of me, too much type makes me disinterested.**
- 3) What wasn't helpful or clear information wise? **Nothing**
- 4) What would you have liked to have seen in the guide? **More visuals. Large font paragraphs that highlight certain points.**
- 5) Was the additional information provided by the guide able to assist you in considering the program? **Yes it was**
- 6) Any additional comments? **Great packet and great program.**

Black: Question

Red: Answer